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ABSTRACT

This survey was designed to obtain information concerning intramural-recreational facilities at four-year colleges and universities throughout the United States. A secondary purpose of the study was to determine how the University of Hawaii compared with other universities of the same size. A questionnaire was sent to 373 individuals and/or universities whose names appeared in the 1972-73 National Intramural Association Membership Directory. A 74 percent response was received. Respondents were asked to answer questions concerning present and future intramural-recreational facilities and participation in various activities during the 1973-74 school year. Results were tabulated and measures of central tendencies were developed for each facility. The study makes it possible to compare institutions of the same size. (The study is documented with extensive tables.) (Author/JS)

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A SURVEY OF INTRAMURAL-RECREATIONAL FACILITIES AT FOUR-YEAR COLLEGES AND UNIVERSITIES IN THE UNITED STATES

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The intramural-recreational programs of the University of Hawaii (UH) are currently "bursting at the seams" due to limited facilities. Like many universities, the facilities at the UH have not kept pace with increases in total student enrollment and participation in the program. A "blue-ribbon" panel reviewing UH athletic and recreational programs rated the facilities as "totally inadequate", (5) a situation which most participants realize.

The panel's recommendations emphasized the immediate need for indoor and outdoor recreational playing areas. Being aware of the dismal situation of the UH facilities, a decision was made to undertake this project to determine how UH facilities compare with those of other institutions. The purpose of this survey is to document the situation and eventually present the findings to the state legislature and/or administration.

It was also felt that this information may be of some assistance to other universities in evaluating the status of their facilities.

Purpose of the Study

The primary purpose of this study was to obtain information concerning intramural-recreational facilities at four-year colleges and universities throughout the United States.

The secondary purpose of the study was to determine how the University of Hawaii compared with other universities of comparable size.

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Procedure Used in Conducting the Study

A questionnaire, designed with the assistance of the Survey Research Office of the University of Hawaii, was sent to 373 individuals and/or universities whose names appeared in the 1972-73 National Intramural Association Membership Directory.

Part I of the questionnaire asked for responses to general questions concerning present and future intramural-recreational facilities. Part II of the questionnaire sought information on the number of facilities available for intramural-recreational use on the respective campuses during the 1973-74 school year. Part III was concerned with ascertaining the number of individuals and teams participating in various activities during the 1973-74 school year.

Limitations of the Study

The study was limited somewhat by the fact that only members and member institutions of the National Intramural Association in 1972-73, totaling 373, were selected for the study. Another drawback is the inherent limitations of survey research procedures (1,2).

Summary of Survey Results

Three hundred seventy-three questionnaires were sent to members and/or member institutions of the National Intramural Association. Although returns of less than 40 or 50 percent are common in mail questionnaires (1), this survey yielded a 74 percent response. Of the 277 responses, 13 were voided for technical reasons.

Only 17 (6.4%) institutions had a building specifically assigned for indoor intramural recreational activities. The significance of this type of facility would be the availability of a recreational playing area on an all-day basis. Twenty-seven (10.2%) institutions had plans to build an indoor intramural-recreational facility within the next 2 years. (See Table 1)

Of the responses received, 244 (92.4%) institutions shared intramural-recreational facilities with men's physical education programs. Facilities were also shared with intercollegiate athletics in 232 (87.9%) institutions. Women's physical education programs shared facilities with intramural-recreational programs at 230 (87.1%) institutions. Other campus activities shared facilities with intramural-recreational programs at 206 (78%) institutions. (See Table II)

At institutions sharing facilities, the academic program received first priority as expected. One hundred seventy-eight (67.4%) institutions rated physical education as their first priority. One hundred thirty-five (51.1%) institutions indicated intercollegiate athletics as the second priority. One hundred fifty-three (58%) listed the intramural-recreational program as the third priority. (See Table II)

Two hundred one (76.1%) institutions indicated that intramural football and softball games are scheduled on the same playing area but used at different times during the year. Likewise, most of the responses (235-89%) indicated that intramural basketball and volleyball games and badminton matches were scheduled on the same indoor playing area but used at different times during the year. (See Table III)

A cross tabulation of school enrollment with facilities revealed a great disparity in the number of facilities at different institutions. As expected, the schools with the larger enrollments, generally had a proportionately greater number of facilities. (See Table IV to XVII). In all cases, the facilities at the University of Hawaii are far below the mean for comparable size institutions.

A summary of student enrollment per intramural-recreational playing area revealed approximately 2,500-3,000 students per playing area in the four major activities--basketball, volleyball, football, and softball. The mean number of students per playing area on the UH campus far exceeds the group mean. (See Table XVIII)

The number of teams per intramural-recreational playing area varied from a minimum of 1 to a maximum of 402 in the four major activities. The mean number of UH intramural teams was approximately double the group mean per playing area. (See Table XIX)

As expected, the UH facilities are "totally inadequate" for an institution of its size. Additional football/softball fields, tennis courts and a multi-purpose building which would include areas for basketball, volleyball, badminton, handball, gymnastics and wrestling would greatly relieve the over crowded situation on the University of Hawaii's athletic-recreational facilities.

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3. _____. College and University Facilities Guide for Health, Physical Education, Recreation, and Athletics. Washington, D.C.: AAHPER, 1969.

4. _____. Planning Areas and Facilities for Health, Physical Education, and Recreation. Chicago, Illinois: The Athletic Institute, 1965.

5. Chancellor's Athletic Program Review Teams, 1975.
   Members: Elroy "Crazy Legs" Hirsch, University of Wisconsin Athletic Director; Stan Bates, Western Athletic Conference Commissioner; John P. Schaefer, University of Arizona President, and James Burns, Honolulu Attorney and secretary of Ahahui Koa Anuenue (UH's Athletic Fund-raising organization).

TABLE I

RESPONSES TO GENERAL QUESTIONS CONCERNING FACILITIES

A. Does your school have a building specifically assigned for indoor intramural-recreational activities only?

Yes = 6.4%	No = 93.6%
(17)	(247)

B. Is your school planning on building an INTRAMURAL-RECREATIONAL facility for indoor recreational activities in the next 2 years?

Yes = 10.2%	No = 89.8%
(27)	(237)

TABLE II

RESPONSES TO GENERAL QUESTIONS CONCERNING FACILITIES

A. Do you share your facilities with: (check one or more as applicable)

Intercollegiate Athletics?	87.9% (232)
Men's Physical Education?	92.4% (244)
Women's Physical Education?	87.1% (230)
Other Campus Activities?	78.0% (206)

B. If you share facilities, list by number the order of priority for the using groups.

	PRIORITIES				
	0	1st	2nd	3rd	4th
Intramural-Recreational	3.8% (10)	6.1% (16)	25.4% (67)	58.0% (153)	6.8% (18)
Intercollegiate Athletics	12.5% (33)	23.9% (63)	51.1% (135)	11.0% (29)	1.5% (4)
Physical Education	7.2% (19)	67.4% (178)	19.3% (51)	4.9% (13)	1.1% (3)
Other Campus Activities	20.1% (53)	1.1% (3)	1.9% (5)	17.0% (45)	59.8% (158)

TABLE III

RESPONSES TO GENERAL QUESTIONS CONCERNING FACILITIES

A. Are your intramural football and softball games scheduled for the same playing area but used at different times during the year?

Yes = 76.1%	No = 23.1%	No Response = 0.8%
(201)	(61)	(2)

B. Are your intramural basketball, volleyball, and badminton games scheduled for the same playing area but used during different times of the year?

Yes = 89.0%	No = 9.8%	No Response = 1.2%
(235)	(26)	(3)

TABLE IV

SUMMARY OF SCHOOL ENROLLMENTS CROSS TABULATED WITH FACILITIES

BASKETBALL COURTS

ENROLLMENT	2,500	5,000	7,500	10,000	15,000	20,000	25,000	25,000+	U of H 23,000
% of Total Responses	26.5	12.9	11.7	13.3	13.3	9.1	5.7	7.6	
# of Total Responses	70	34	31	35	35	24	15	20	
INDOOR									
Mean	2.45	3.55	2.74	3.74	4.40	4.87	5.13	7.35	3
Median	2	3	3	4	4	5	4	7	
Mode	2	2	3	3	4	5	4	4	
Range	0-6	1-12	0-5	0-9	1-10	0-17	2-9	2-15	
OUTDOOR									
Mean	0.54	0.76	1.03	2.94	2.40	2.20	2.20	3.55	0
Median	0	0	0	1	0	0	0	2	
Mode	0	0	0	0	0	0	0	0	
Range	0-4	0-6	0-17	0-24	0-12	0 10	0-11	0-12	
LIGHTED									
Mean	0.11	0.32	0.06	1.00	0.34	0.66	1.00	1.30	0
Median	0	0	0	0	0	0	0	0	
Mode	0	0	0	0	0	0	0	0	
Range	0-3	0-4	0-2	0-12	0-4	0-10	0-5	0-5	

TABLE V

SUMMARY OF SCHOOL ENROLLMENTS CROSS TABULATED WITH FACILITIES

SOFTBALL FIELDS

ENROLLMENT	2,500	5,000	7,500	10,000	15,000	20,000	25,000	25,000+	U of H 23,000
% of Total Responses	26.5	12.9	11.7	13.3	13.3	9.1	5.7	7.6	
# of Total Responses	70	34	31	35	35	24	15	20	
OUTDOOR									
Mean	2.54	3.70	3.00	5.74	5.05	7.62	8.00	9.70	2
Median	2	3	2	4	4	6	6	8	
Mode	2	3	2	4	4	2,3,14	3,5,6, 10,12	5-8	
Range	0-9	0-20	0-10	0-12	0-20	0-20	2-18	2-25+	
LIGHTED									
Mean	0.60	0.94	0.32	2.42	0.74	0.87	3.26	4.50	2
Median	0	0	0	0	0	0	0	3	
Mode	0	0	0	0	0	0	0	0	
Range	0-10	0-20	0-3	0-12	0-4	0-12	0-25+	0-25	

TABLE VI

SUMMARY OF SCHOOL ENROLLMENTS CROSS TABULATED WITH FACILITIES

FOOTBALL FIELDS - NATURAL TURF

ENROLLMENT	2,500	5,000	7,500	10,000	15,000	20,000	25,000	25,000+	U of H 23,000
% of Total Responses	26.5	12.9	11.7	13.3	13.3	9.1	5.7	7.6	
# of Total Responses	70	34	31	35	35	24	15	20	
Mean	2.62	4.00	2.38	4.77	4.20	7.16	7.86	8.35	0
Median	2	3	2	4	4	5	9	7	
Mode	2	2	2	4	4	4	6,10	6,7	
Range	0-20	1-24	0-8	0-12	0-14	0-20	0-13	0-25	
LIGHTED									
Mean	0.47	1.52	0.54	1.82	0.85	0.66	2.53	3.80	0
Median	0	0	0	0	0	0	0	0	
Mode	0	0	0	0	0	0	0	0	
Range	0-5	0-24	0-8	0-9	0-5	0-5	0-10	0-25	

TABLE VII

SUMMARY OF SCHOOL ENROLLMENTS CROSS TABULATED WITH FACILITIES

FOOTBALL FIELDS - ARTIFICIAL TURF

ENROLLMENT	2,500	5,000	7,500	10,000	15,000	20,000	25,000	25,000+	U of H 23,000
% of Total Responses	26.5	12.9	11.7	13.3	13.3	9.1	5.7	7.6	
# of Total Responses	70	34	31	35	35	24	15	20	
Mean	0.04	0.00	0.03	0.17	0.45	0.33	0.33	0.40	2
Median	0	0	0	0	0	0	0	0	
Mode	0	0	0	0	0	0	0	0	
Range	0-3	0	0-1	0-3	0-8	0-2	0-2	0-3	
LIGHTED									
Mean	0.00	0.00	0.00	0.14	0.31	0.20	0.33	0.25	2
Median	0	0	0	0	0	0	0	0	
Mode	0	0	0	0	0	0	0	0	
Range	0	0	0	0-3	0-8	0-2	0-2	0-2	

TABLE VIII

SUMMARY OF SCHOOL ENROLLMENTS CROSS TABULATED WITH FACILITIES

VOLLEYBALL COURTS

ENROLLMENT	2,500	5,000	7,500	10,000	15,000	20,000	25,000	25,000+	U of H 23,000
% of Total Responses	26.5	12.9	11.7	13.3	13.3	9.1	5.7	7.6	
# of Total Responses	70	34	31	35	35	24	15	20	
INDOOR									
Mean	3.04	3.91	3.22	5.17	5.54	6.16	6.00	8.75	4
Median	3	4	3	4	5	5	6	8	
Mode	3	2	3	3	4	3,4,5,	4,6	3,6, 7,8,15	
Range	0-9	0-12	0-7	0-16	0-15	0-20	3-14	0-17	
OUTDOOR									
Mean	0.70	1.79	0.41	0.94	1.31	2.04	0.60	2.40	0
Median	0	0	0	0	0	0	0	0	
Mode	0	0	0	0	0	0	0	0	
Range	0-8	0-24	0-4	0-6	0-10	0-16	0-4	0-13	
LIGHTED									
Mean	0.11	0.41	0.00	0.31	0.28	0.41	0.26	0.20	0
Median	0	0	0	0	0	0	0	0	
Mode	0	0	0	0	0	0	0	0	
Range	0-3	0-8	0	0-4	0-6	0-10	0-4	0-4	

TABLE IX

SUMMARY OF SCHOOL ENROLLMENTS CROSS TABULATED WITH FACILITIES

TENNIS COURTS

ENROLLMENT	2,500	5,000	7,500	10,000	15,000	20,000	25,000	25,000+	U of H 23,000
% of Total Responses	26.5	12.9	11.7	13.3	13.3	9.1	5.7	7.6	
# of Total Responses	70	34	31	35	35	24	15	20	
OUTDOOR									
Mean	7.08	9.05	8.45	10.85	10.28	12.54	17.73	25.05	6
Median	6	6	8	9	10	12	18	24	
Mode	6	6	4,6, 8,12	0,6	12	8	16	24	
Range	0-50	0-36	0-20	0-36	0-38	0-29	0-36	5-50	
LIGHTED									
Mean	1.74	1.44	1.64	6.20	2.80	4.62	8.66	9.65	0
Median	0	0	0	4	0	0	0	6	
Mode	0	0	0	0	0	0	0	0	
Range	0-12	0-8	0-9	0-36	0-16	0-16	0-38+	0-37	
INDOOR									
Mean	0.88	1.17	0.90	1.68	0.42	0.95	1.00	1.70	0
Median	0	0	0	0	0	0	0	0	
Mode	0	0	0	0	0	0	0	0	
Range	0-10	0-10	0-6	0-20	0-5	0-6	0-6	0-10	

TABLE X

SUMMARY OF SCHOOL ENROLLMENTS CROSS TABULATED WITH FACILITIES

BADMINTON COURTS

ENROLLMENT	2,500	5,000	7,500	10,000	15,000	20,000	25,000	25,000+	U of H 23,000
% of Total Responses	26.5	12.9	11.7	13.3	13.3	9.1	5.7	7.6	
# of Total Responses	70	34	31	35	35	24	15	20	
Mean	5.24	5.88	4.90	8.42	9.17	10.37	13.06	15.80	4
Median	5	6	4	8	8	8	10	12	
Mode	18	0,6	8	4,6,8	12	6,8,12	4,12	12	
Range	0-14	0-18	0-11	0-24	0-40	0-32	3-55+	2-55	

TABLE XI

TRACK & FIELD

Mean	0.78	0.67	0.74	0.97	0.71	0.91	0.93	1.10	1
Median	1	1	1	1	1	1	1	1	
Mode	1	1	1	1	1	1	1	1	
Range	0-1	0-1	0-1	0-2	0-2	0-2	0-1	1-2	

TABLE XII

SUMMARY OF SCHOOL ENROLLMENTS CROSS TABULATED WITH FACILITIES

WEIGHT ROOMS

ENROLLMENT	2,500	5,000	7,500	10,000	15,000	20,000	25,000	25,000+	U of H 23,000
% of Total Responses	26.5	12.9	11.7	13.3	13.3	9.1	5.7	7.6	
# of Total Responses	70	34	31	35	35	24	15	20	
Mean	1.02	1.20	0.96	1.11	0.97	1.54	1.13	1.85	1
Median	1	1	1	1	1	1	1	2	
Mode	1	1	1	1	1	1	1	2	
Range	0-2	0-3	0-2	0-3	0-2	0-3	0-2	1-4	

TABLE XIII

SUMMARY OF SCHOOL ENROLLMENTS CROSS TABULATED WITH FACILITIES

SWIMMING POOLS

ENROLLMENT	2,500	5,000	7,500	10,000	15,000	20,000	25,000	25,000+	U of H 23,000
% of Total Responses	26.5	12.9	11.7	13.3	13.3	9.1	5.7	7.6	
# of Total Responses	70	34	31	35	35	24	15	20	
INDOOR									
Mean	0.65	0.91	0.90	0.97	0.97	1.45	1.46	1.85	0
Median	1	1	1	1	1	1	1	2	
Mode	1	1	1	1	1	1	1	0	
Range	0-2	0-2	0-3	0-4	0-3	0-3	0-3	0-5	
OUTDOOR									
Mean	0.20	0.05	0.09	0.17	0.48	0.20	0.46	1.20	1
Median	0	0	0	0	0	0	0	1	
Mode	0	0	0	0	0	0	0	0	
Range	0-1	0-1	0-1	0-1	0-8	0-2	0-2	0-7	

TABLE XIV

SUMMARY OF SCHOOL ENROLLMENTS CROSS TABULATED WITH FACILITIES

HANDBALL - 4-WALL

ENROLLMENT	2,500	5,000	7,500	10,000	15,000	20,000	25,000	25,000+	U of H 23,000
% of Total Responses	26.5	12.9	11.7	13.3	13.3	9.1	5.7	7.6	
# of Total Responses	70	34	31	35	35	24	15	20	
INDOOR									
Mean	1.15	2.17	2.25	3.48	5.25	4.91	3.81	11.26	0
Median	0	0	1	3	2	2	2	6	
Mode	0	0	0	0	0	0	0	0,2,5	
Range	0-6	0-19	0-12	0-16	0-12	0-20	0-14	0-35+	

TABLE XV

MARTIAL ARTS ROOMS

Mean	0.27	0.55	0.32	0.42	0.45	0.45	0.53	0.95	1
Median	0	0	0	0	0	0	1	1	
Mode	0	0	0	0	0	0	1	1	
Range	0-1	0-6	0-1	0-2	0-1	0-2	0-1	0-3	

TABLE XVI

SUMMARY OF SCHOOL ENROLLMENTS CROSS TABULATED WITH FACILITIES

GYMNASTICS ROOM

ENROLLMENT	2,500	5,000	7,500	10,000	15,000	20,000	25,000	25,000+	U of H 23,000
% of Total Responses	26.5	12.9	11.7	13.3	13.3	9.1	5.7	7.6	
# of Total Responses	70	34	31	35	35	24	15	20	
Mean	0.70	0.82	0.67	1.00	1.05	0.95	0.86	1.15	1
Median	1	1	1	1	1	1	1	1	
Mode	1	1	1	1	1	1	1	1	
Range	0-1	0-5	0-2	0-2	0-2	0-2	0-1	0-3	

TABLE XVII

SUMMARY OF SCHOOL ENROLLMENTS CROSS TABULATED WITH FACILITIES

GOLF COURSES

ENROLLMENT	2,500	5,000	7,500	10,000	15,000	20,000	25,000	25,000+	U of H 23,000
% of Total Responses	26.5	12.9	11.7	13.3	13.3	9.1	5.7	7.6	
# of Total Responses	70	34	31	35	35	24	15	20	
9-HOLE									
Mean	0.11	0.05	0.06	0.11	0.14	0.12	0.00	0.15	0
Median	0	0	0	0	0	0	0	0	
Mode	0	0	0	0	0	0	0	0	
Range	0-1	0-1	0-1	0-1	0-1	0-1	0	0-1	
18-HOLE									
Mean	0.07	0.14	0.19	0.14	0.08	0.20	0.40	0.55	0
Median	0	0	0	0	0	0	0	0	
Mode	0	0	0	0	0	0	0	0	
Range	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-2	

TABLE XVIII

SUMMARY OF STUDENTS PER INTRAMURAL-RECREATIONAL PLAYING AREA

	MEAN	S.D.	MINIMUM	MAXIMUM	University of Hawaii Enrollment: 23,000 MEAN
BASKETBALL COURTS					
Indoor	2,893	2,763	271	17,500	7,667
Outdoor	4,056	3,498	365	15,000	----
Outdoor - lighted	4,892	3,855	729	15,000	----
SOFTBALL FIELDS					
Outdoor	2,554	2,556	163	15,000	11,500
Outdoor - lighted	3,531	2,912	163	15,000	11,500
FOOTBALL FIELDS					
Natural turf	2,630	3,223	125	30,000	----
Natural turf - lighted	3,627	3,774	135	30,000	----
Artificial turf	14,206	8,042	833	30,000	11,500
Artificial turf - lighted	16,829	8,038	2,917	30,000	11,500
VOLLEYBALL COURTS					
Indoor	2,352	2,276	271	17,500	5,750
Outdoor	4,573	5,972	135	30,000	----
Outdoor - lighted	3,292	2,658	406	8,750	----
BADMINTON COURTS	1,494	1,569	179	15,000	5,750

TABLE XVIII (CONTINUED)

SUMMARY OF STUDENTS PER INTRAMURAL-RECREATIONAL PLAYING AREA

	MEAN	S.D.	MINIMUM	MAXIMUM	University of Hawaii Enrollment: 23,000 MEAN
TENNIS COURTS					
Indoor	3,799	4,405	250	30,000	----
Outdoor	1,049	1,068	50	8,750	3,833
Lighted	1.586	1,715	208	12,500	----
WEIGHT ROOMS	8,082	6,869	1,083	30,000	23,000
TRACK & FIELD FACILITIES					
Indoor	10,312	7,745	2,500	30,000	----
Outdoor	10,044	8,521	2,500	30,000	23,000
Lighted	10,181	8,581	2,500	30,000	23,000
HANDBALL (4-WALL)					
Indoor	2,985	3,378	171	22,500	----
Outdoor	4,113	2,102	1,250	7,500	----
Lighted	7,086	7,964	1,250	30,000	----
SWIMMING POOL					
Indoor	7,238	5,440	1,250	30,000	----
Outdoor	11,738	9,269	1,563	30,000	23,000
Lighted	11,714	9,660	2,500	30,000	23,000
GOLF COURSE					
9-Hole	10,333	8,710	2,500	30,000	----
18-Hole	13,139	9,115	2,500	30,000	----
MARTIAL ARTS ROOM	11,442	8,571	464	30,000	23,000
GYMNASTICS ROOM	9,905	7,996	361	30,000	23,000

TABLE XIX

SUMMARY OF THE TOTAL NUMBER OF TEAMS PER INTRAMURAL-RECREATIONAL PLAYING AREA

	MEAN	S.D.	MINIMUM	MAXIMUM	University of Hawaii Enrollment: 23,000 MEAN
BASKETBALL TEAMS	25	38	3	363	70
FOOTBALL TEAMS	20	45	1	350	35
SOFTBALL TEAMS	22	38	2	350	50
VOLLEYBALL TEAMS	18	41	1	402	30.5